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State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Kathleen Clarke
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

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TO: Internal File

THRU: Daron R. Haddock, Permit Supervisor

FROM: James D. Smith, Sr. Reclamation Specialist/Hydrology

RE: Midterm Review, PacifiCorp, Cottonwood/Wilberg Mine, C/015/019-MT02

SUMMARY:

As part of the Division's midterm permit review process, sections of the Cottonwood/Wilberg mining and reclamation plan were reviewed for compliance with the R645 Coal Mining Rules.

A midterm review of the applicable portions of the MRP has found that the plan contains a commitment that appropriate sediment control measures will be designed, constructed and maintained using the Best Technology Currently Available (BTCA) to:

- Prevent, to the extent possible, additional contributions of sediment to stream flow or to runoff outside the permit area;
- Meet the effluent limitations under R645-301-751; and
- Minimize erosion to the extent possible.

Design and as-built information in the MRP generally indicates that BTCA is being used for sediment control at ASCAs at the Cottonwood/Wilberg Mine, but the location of some ASCAs and disposition of the BTCA sediment control measures are not clear on some maps and plans.

TECHNICAL ANALYSIS:

OPERATION PLAN

HYDROLOGIC INFORMATION

Regulatory Reference: 30 CFR Sec. 773.17, 774.13, 784.14, 784.16, 784.29, 817.41, 817.42, 817.43, 817.45, 817.49, 817.56, 817.57; R645-300-140, -300-141, -300-142, -300-143, -300-144, -300-145, -300-146, -300-147, -300-147, -300-148, -301-512, -301-514, -301-521, -301-531, -301-532, -301-533, -301-536, -301-542, -301-720, -301-731, -301-732, -301-733, -301-742, -301-743, -301-750, -301-761, -301-764.

Analysis:

Alternate Sediment Contol Areas (ASCA)

There are ten ASCAs in the permit area. A total of 15.61 acres is disturbed by these ASCAs according to Table 5 in Part 3 of the MRP.

1 - Miller Canyon – 0.02 acre. Sediment control at this reclaimed area is by surface roughening and deep pocking. This is discussed in Appendix XXII. Locations of the three small disturbed areas are shown on a map in Attachment # 4, but there are no detailed maps or plans. A photo essay in Attachment #5 and other photos in Appendix XXII document the nature of the ASCAs and BTCA used for sediment control. Detailed maps or drawings would provide no additional useful information.

2 – Sewer Absorption Field – 1.25 acres. Silt fence provides sediment control. Map 1-3 shows the general location at a small-scale, but there is no detailed map or plan.

3 – Proposed Cottonwood Fan-Portal Reclamation – 8.4 acres. This site is being reclaimed, and surface roughening, deep pocking, strawbales, silt fence, sedimentation basins, berms, and rock gabions provide sediment control. Although not specified in the MRP, vegetation is becoming established and provides substantial sediment control. Plans are to remove silt fence and sedimentation ponds in the near future, perhaps in 2002. Map 3-13 of Volume 11 shows the features of this ASCA.

4 – Waste Rock Site – Outslope – 0.93 acre. Strawbales and silt fence provide sediment control at this ASCA, which is the outslope of a reclaimed waste rock pile. Drawing CM-10361-WB in Appendix VII shows the location of this ASCA.

5 – Guard Station – 0.18 acre. Silt fence provides sediment control. It isn't really clear from the information in the MRP where this silt fence is deployed. A blue line on Map 3-16 indicates silt fence entirely surrounds this guard station.

6 – Conveyor Bent Pad – 0.04 acre. Sediment control is by strawbales. Map 3-16 shows this ASCA around the base of a conveyor bent that is inside the disturbed area (a bent for the conveyor that runs southwest to northeast from a portal to the silo). A small disturbed area at the base of another bent (on the north-south conveyor between the transfer-station and the silo) is seperated from the main disturbed area but is not shown as an ASCA. The map should be checked against what is on the ground to confirm whether or not the ASCA is actually where it is indicated on Map 3-16.

7 – Tube Conveyor Access Road - 0.24 acre. Sediment control is by silt fence, strawbales, and berms. Map 3-16 shows this ASCA.

8 – Wilberg Fan - 0.67 acre. A sediment trap and berm provide sediment control. Map 3-16 shows this site.

9 – Deer Creek Mine 9th East Breakouts – 0.60 acre. Reclamation of this site was completed in 1999, and surface roughening and deep pocking provide sediment control. The ASCA is shown on Map 3-16.

10 – Waste Rock Site –65027 – 3.28 acres. Map 4-2 in Volume 10 indicates the general location of this ASCA, but neither Map 4-2 nor any other map in Volume 10 clearly defines the ASCA. Maps 4-1and 4-5 show the location of a fence, but it is unclear whether this is a security fence or the silt fence of the ASCA.

Findings:

Except for problems discussed under the following section on Maps, Plans, and Cross Sections of Mining, information on the use of BTCA to prevent additional contributions of suspended solids to stream flows outside of the permit area is sufficient to meet the requirements of the Coal Mining Rules.

MAPS, PLANS, AND CROSS SECTIONS OF MINING OPERATIONS

Regulatory Reference: 30 CFR Sec. 784.23; R645-301-512, -301-521, -301-542, -301-632, -301-731, -302-323.

Analysis:

Mining Facilities Maps

Depictions of ASCAs on some maps were found to be inaccurate or unclear, including, but not limited to:

Sewer Absorption Field. Map 1-3 shows the general location of the ASCA at the Sewer Absorption Field, but there is no detailed map or plan of the ASCA.

Guard Station. Silt fence provides sediment control at the Guard Station, but it isn't really clear from the information in the MRP where this silt fence is deployed. A blue line on Map 3-16 indicates silt fence entirely surrounds this guard station.

Conveyor Bent Pad . Map 3-16 shows this ASCA around the base of a conveyor bent

that is inside the disturbed area (the bent is for the conveyor that runs southwest to northeast from a portal to the silo). A small disturbed area at the base of another bent (on the north-south conveyor between the transfer-station and the silo) is seperated from the main disturbed area but is not shown as an ASCA. The map should be checked against what is on the ground to confirm whether or not the ASCA is actually where it is indicated on Map 3-16.

Waste Rock Site –65027. Map 4-2 in Volume 10 indicates the general location of the ASCA at this Waste Rock Site, but neither Map 4-2 nor any other map in Volume 10 clearly delineates the ASCA. Maps 4-1and 4-5 show the location of a fence, but it is unclear whether this is a security fence or the silt fence of the ASCA.

Findings:

R645-301-121.200, -512.100, -512.200, The ASCA and associated BTCA at the Sewer Absorption Field need to be shown on a map or plan at a scale large enough to allow comparison of design to actual construction or installation, and inspection.

R645-301-121.200, -512.100, -512.200, Location and use of silt fence at the Guard Station needs to be clarified on maps or plans.

R645-301-121.200, -512.100, -512.200, Map 3-16 needs to be checked against what is on the ground to confirm whether or not the Conveyor Bent Pad ASCA it is where indicated on the map.

R645-301-121.200, -512.100, -512.200, Maps in Volume 10, such as 4-1, 4-2, or 4-5, need to show the ASCA and the location of silt fence at Waste Rock Site – 65027 accurately enough to allow comparison of design to actual construction or installation, and inspection.